

REMARKS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

The Examiner has rejected claims 1-22. Claims 1, 11, 21, and 22 have been amended. Claims 6 and 16 were canceled. Claims 1-5, 7-15, and 17-22 are pending.

The changes in the Claims do not introduce new matter but clarify matters shown and described in the application as filed. The foregoing amendments and following remarks are believed to be fully responsive to the Office Action mailed September 27, 2004 and render all currently pending claims at issue patentably distinct over the references cited by the Examiner. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art. Reconsideration and examination of this application is respectfully requested in light of the foregoing amendments and the following remarks.

EXAMINER'S OFFICE ACTION

In the September 27, 2004 Office Action (hereafter "9-27-04 OA") the Examiner:

rejected claims 1-5, 7-15, and 17-15 under 35 USC § 102(b) as being anticipated by Admitted Prior Art (hereinafter "APA");

rejected claims 6 and 16 under 35 USC § 103(a) as being obvious over APA in view of Hunter, U.S. Patent No. 6,468,816 (hereinafter "HUNTER").

Rejections under 35 USC § 102(b)

Claims 1-5, 7-15, and 17-22 stand rejected under 35 USC § 102(b) as being anticipated by APA.

The rejection of claims 1-5, 7-15, and 17-15 based on APA is respectfully traversed.

The APA Fig. 4, teaches prior art gauge 92. See Applicant's Specification, paragraph 34.

Claims 1, 11, 21 and 22 of the present invention have been amended to clearly define the gauge comprising the leveling mechanism or horizontal gauge for measuring a horizontal gap between a baffle plate and a chamber wall.

More particularly, Claims 1, 11, 21, and 22 of the present invention were amended to further define the leveling mechanism or horizontal gauge of the present invention to have the structure of a gauge 14 and 15 disposed between a chamber wall and a baffle plate 16. See Applicant's Application, Figs. 1 and 2 ; see also Applicant's Specification, page 6, paragraphs 28 and 29. More specifically, various aspects of the present invention include a leveling portion 78 and 88 and a modified portion 74 and 84. See Applicant's Application, Fig. 3; see also Applicant's Specification, page 7, paragraphs 32 - 34. The modified portion 74, 84 is disposed between the ESC 34 and the chamber wall; the leveling portion 78, 88 is disposed between the ring portion 24 and the modified portion 74, 84 as shown in Applicant's Specification, Fig. 3.

The leveling mechanism 78, 88, or horizontal gauge, of the present invention ". . . is configured in a manner which permits accurate measurement of the gap between a baffle plate such as, for example, baffle plate 16 and a chamber wall", thus able to measure a gap in a horizontal direction; i.e., a horizontal gap. See Applicant's Specification, page 7, paragraph 34.

By contrast, the gauge 92 of the APA "does not permit such a measurement." Applicant's Specification, page 7, paragraph 34. Therefore, it is apparent that failure to measure such a horizontal gap would result contact between the baffle plate 16 and the chamber wall during semiconductor fabrication operations and resulting in damage to the chamber wall, a problem well-documented in the prior art. See Applicant's Specification, page 4, paragraphs 8-9.

Support for amending independent claims is disclosed in Applicant's Specification, as referenced above.

Nowhere does APA disclose, teach, or suggest such a horizontal gauge or leveling mechanism for measuring the horizontal gap between a baffle plate and the chamber wall.

According to MPEP § 706.02, anticipation under 35 U.S.C. §102 requires that "the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." Here, the APA reference fails. The reference does not teach, suggest, or even remotely hint that the horizontal gap can or should be measured, or that a such an element exists to accomplish the same. Thus, the present invention, as set forth in the now amended claims and the claims depending therefrom, is clearly distinct from the art of record.

Rejections under 35 USC § 103(a)

Claims 6 and 16 stand rejected under 35 USC § 103(a) as being obvious over APA in view of Hunter.

The rejection of claims 6 and 16 based on APA and HUNTER is respectfully traversed.

Claims 6 and 16 were canceled rendering the rejection of claims 6 and 16 moot. However a leveling mechanism is now disclosed in independent claims 1 and 11, from which claims 6 and 16 depended from, respectively.

The arguments made with regard to claims 1, 11, 21, and 22, *supra*, can be similarly applied herein. As noted, the APA does not provide a horizontal gauge or leveling mechanism. Adding the HUNTER reference does not provide the horizontal gauge or leveling mechanism as disclosed in the present invention.

More particularly, HUNTER teaches the use of a bubble level whereby "an operator places a level, such as a bubble level, 26 onto the blade 18 and reads the inclination (of a blade) through a window in the level 26. . .". HUNTER, page 7, third paragraph. Nowhere does HUNTER teach the use of a bubble level or any other mechanism *to measure a horizontal gap between to component*. Applicant notes that reading the inclination of a blade, or any other component would not only be futile (as it would not allow determination of a measurement of a horizontal gap, and from such a determination, passage of a baffle plate therethrough without contact with, and damage to, a chamber wall, discussed above), it would be impossible, as the semiconductor fabrication system of the present invention does not accommodate operator-readable components. Further, the semiconductor fabrication operation of the present invention neither accommodates, nor would it benefit from, such manual intervention.

As is disclosed in amended independent claims 1, 11, 21, and 22, the present invention operates to *mechanically measure a horizontal gap between the baffle plate and the chamber, as heretofore discussed*.

Nowhere does HUNTER disclose, teach, or suggest that a leveling mechanism be used to measure a horizontal gap between an electrostatic chuck and a chamber wall for damage prevention measures. Thus, the present invention as claimed is

not rendered obvious by APA or HUNTER. Therefore, independent claims 1, 11, 21, and 22 are patentably distinct over the APA and HUNTER reference, as are all dependent claims depending therefrom respectively.

The APA reference fails to provide the necessary motivation of one skilled in the art to combine the individual teaching of APA with HUNTER to arrive at the Appellants' invention. The rejection is faulty because these two references are reconstructed in a manner wherein the Examiner picks and chooses something from each of the references to find each and every limitation of Applicant's claims. There is no motivation for the reconstruction, whether the references are considered alone or in combination. A search of the Hunter reference shows that the terms "gauge" and "electrostatic chuck" are not used once, in any context. Accordingly, to read such terms into the prior art, when the prior art is silent or teaches against such is to use hindsight to reject the claim.

The references of record do not teach, suggest or remotely hint alone or in combination the addition of leveling mechanism of the present invention. Therefore, claims 1, 11, 21, and 22, and claims depending therefrom are patentably distinct from the prior art of record.

The foregoing amendments further clarified some of the features of the gap gauge. It is believed that the present invention as amended is novel and non-obvious over the references relied upon by the examiner.

Additionally, as discussed previously, because none of the references cited and relied upon by Examiner disclose, teach or suggest all of the features alone or in combination of the claimed invention, the 102 and 103 rejections are believed to be obviated.


Based on the above, it is respectfully submitted that the amended claims 1-5, 7-15, and 17-22 and claims depending therefrom are in condition for allowance, which allowance is earnestly solicited.

Based on the foregoing, the Applicant respectfully submits that all of the pending claims are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

If for some reason Applicant has not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 50-0484 for any fee which may be due.

In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicant's representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,



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